CLAIMS

1. A method of producing a brake disk that rotates integrally with a wheel, comprising an outer periphery pressing step for forming an outer peripheral shape of a rotor plate of the brake disk into an outer peripheral shape having recesses and ridges repeated in the radial direction by means of press molding, and a chamfering step for forming a chamfered surface on the rotor plate having the repeated shape formed in the outer periphery pressing step, by pressing, against a corner portion on an outer peripheral edge of the rotor plate having the repeated shape, a die provided with an inclined surface contacting with the corner portion in accordance with the repeated shape, and by plastically deforming the corner portion.

2. The method of producing a brake disk according to claim 1, comprising an outer periphery cut-processing step for machining, after the chamfering step, a part on a leading end side of a ridged portion configuring the repeated shape, in accordance with a circular arc of a circle which is concentric with the center of rotation of the rotor plate, and cut-processing, on the corner portion, a chamfered surface continuing to the chamfered surface obtained by using the die.

3. The method of producing a brake disk according to claim 2, comprising, between the chamfering step and the outer periphery cut-processing step, a heat processing step for performing heat processing in order to cure a braking front face and a braking back face of the rotor plate.

4. The method of producing a brake disk according to any of claims 1 through 3, wherein, in the chamfering step, a chamfered surface is formed using the die, only on a corner portion with no sag, of the corner portions of the outer peripheral edge of the rotor plate, the sag being formed in the outer periphery pressing step.

5. The method of producing a brake disk according to any of claims 1 through 4, wherein the chamfering step is to form a chamfered surface throughout the entire periphery of the rotor plate having the repeated shape formed in the outer periphery pressing step, by pressing, against a corner portion on an outer peripheral edge of the rotor plate having the repeated shape, a die provided with an inclined surface contacting with the corner portion throughout the entire periphery of the rotor plate, in accordance with the repeated shape, and by plastically deforming the corner portion.

6. The method of producing a brake disk according to any of claims 1 through 5, wherein a chamfered length of the chamfered surface corresponds to the size of the sag of the corner portion on the outer peripheral edge of the rotor plate, the sag being formed in the outer periphery pressing step.

7. The method of producing a brake disk according to any of claims 1 through 5, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake pad, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.1 mm and less than or equal to 2.0 mm.

8. The method of producing a brake disk according to any of claims 1 through 5, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake pad, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.1 mm and less than or equal to 1.0 mm.

9. The method of producing a brake disk according to any of claims 1 through 5, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake pad, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.2 mm and less than or equal to 0.7 mm.

10. A brake disk that rotates integrally with a wheel, wherein a recessed and ridged portion which is recessed and protruded in a radial direction is formed repeatedly on an outer peripheral edge of a rotor plate of the brake disk along a circumferential direction, and a chamfered surface is provided on a corner portion of the recessed and ridged portion by means of press molding.

11. The brake disk according to claim 10, wherein a cut-processed outer peripheral surface is formed in a leading end portion of a ridged portion of the recessed and ridged portion by cut-processing a part on the leading end side of the ridged portion in accordance with a circular arc of a circle concentric with the center of rotation of the rotor plate, and a chamfered surface which is formed

on a corner portion of the cut-processed outer peripheral surface by means of cut-processing is provided so as to continue to the chamfered surface obtained by means of the press molding.

12. The brake disk according to claim 10 or 11, wherein the recessed and ridged portion is formed by means of press molding, and a chamfered surface is formed, by pressing, on the side of the recessed and ridged portion where a corner portion has no sag, while the side of the recessed and ridged portion where a corner portion has sag is made to serve as an attaching surface to a wheel.

13. The brake disk according to any of claims 10 through 12, wherein a chamfered length of the chamfered surface corresponds to the size of the sag of the corner portion on the outer peripheral edge of the rotor plate, the sag being formed by means of the press molding.

14. The brake disk according to any of claims 10 through 12, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake pad, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.1 mm and less than or equal to 2.0 mm.

15. The brake disk according to any of claims 10 through 12, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake disk, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.1 mm and less than or equal to 1.0

mm.

16. The brake disk according to any of claims 10 through 12, wherein a chamfered length from the corner portion on the outer peripheral edge of the rotor plate toward a direction of a surface contacting with the brake pad, and a chamfered length from the corner portion toward a direction of an outer peripheral end surface are greater than or equal to 0.2 mm and less than or equal to 0.7 mm.